

# 8.7 PHARMACEUTICAL AND MEDICAL DEVICES ARE AMONG HIGHEST-PROFIT INDUSTRIES\*

Christopher Conover

This work is produced by Medical Industry Leadership Institute Open Education Hub and licensed under the Attribution 3.0<sup>†</sup>

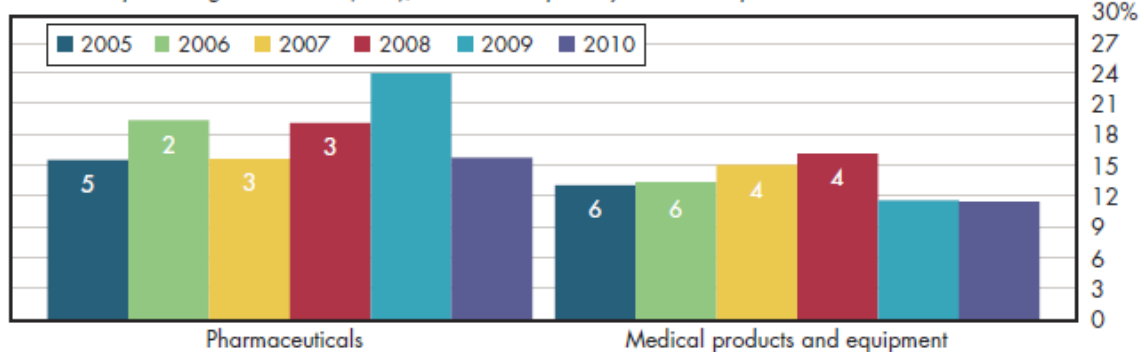
### Abstract

Pharmaceutical and medical devices have higher profits than do most industries, reflecting returns for discovery and innovation.

Pharmaceuticals and medical devices typically rank among the top 10 most profitable industries in America. This is true whether profits are measured as a return on revenue (figure 8.7a), return on assets (figure 8.7b), or return on equity (figure 8.7c). Occasionally, one of these two industries ranks first among all industries in some measures of profitability (figure 8.7b).

### 8.7a Pharmaceuticals and medical devices typically rank in the top 10 among all industries in their return on revenue

Profits as a percentage of revenue (ROR), Fortune 500 publicly traded companies



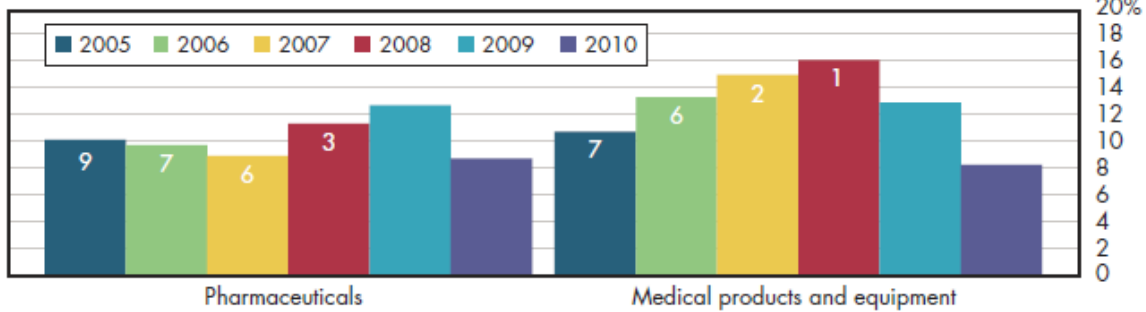
Note: Data labels indicate industry's ranking on ROR for year shown (rankings not available for 2009 or 2010). Although the number varies slightly by year and profitability measure, approximately 50 industries are included in each ranking.

\*Version 1.3: Jun 26, 2014 2:21 pm -0500

<sup>†</sup><http://creativecommons.org/licenses/by/3.0/>

### 8.7b Returns on assets for pharmaceuticals and medical devices place them among the top 10 industries in the United States

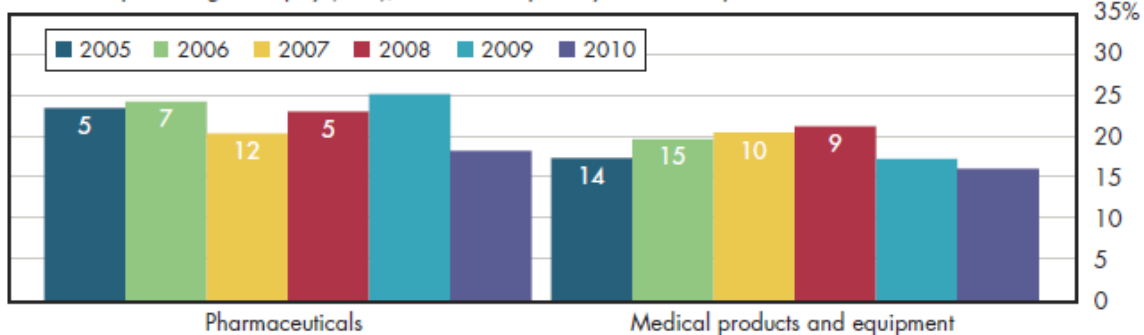
Profits as a percentage of assets (ROA), Fortune 500 publicly traded companies



Note: Data labels indicate industry's ranking on ROA for year shown (rankings not available for 2009 or 2010). Although the number varies slightly by year and profitability measure, approximately 50 industries are included in each ranking.

### 8.7c Both pharmaceuticals and medical products have somewhat lower industry rankings on return on equity than other measures of profit

Profits as a percentage of equity (ROE), Fortune 500 publicly traded companies



Note: Data labels indicate industry's ranking on ROE for year shown (rankings not available for 2009 or 2010). Although the number varies slightly by year and profitability measure, approximately 50 industries are included in each ranking.

Several reasons explain why these two health industries are so much more profitable than the various health-related services industries just examined. First, as shown previously, both industries consist entirely of for-profit firms, creating an arguably more competitive environment. Although there are mixed findings regarding performance of for-profit versus non-profit or government-owned enterprises, almost all comparisons agree that rates of return (however measured) are higher in for-profit firms relative to the not-for-profit counterparts.

Second, patents play a far more important role in pharmaceuticals and medical devices than in the rest of the health care sector. By design, patents are structured to encourage innovation by permitting their owners to earn monopoly returns for a limited time. Although the nominal patent term is 20 years, more than half of this time is typically lost before Food and Drug Administration (FDA) approval due to the lengthy time required for clinical trials and regulatory review.

Third (and related), pharmaceutical R&D especially is a complex, costly, risky, and time-consuming process. Including the costs associated with hundreds of compounds that do not succeed, as well as the cost of capital (financial resources) that is unavailable for other uses during this lengthy process, more than \$1 billion is spent to bring a single new drug to market. Absent the incentives provided by the patent system, there is no question that the amount of pharmaceutical R&D would be considerably less. Concomitantly, the number of new drugs discovered would be fewer. Thus, high profits represent the price paid for the benefits

of new discoveries.

Whether profits are higher than needed to bring forth an optimal level of innovation is a perennial question. Several different analyses have concluded that the high level of pharmaceutical profits only slightly exceeds the industry's cost of capital. Briefly, investors demand higher profits to invest in an industry where returns on R&D are so risky.

## 1 Downloads

Download Figure 8.7a-c Tables<sup>1</sup> used to create Figures 8.7a-c (the workbook includes all supporting tables used to create these tables).

- Fig. 8.7a created from Table 8.6a. Trends in Profitability: Return on Revenue Among Fortune 500 Firms for Selected Industries, 2005-2013 (last updated 6.21.14)
- Fig. 8.7b created from Table 8.6b. Trends in Profitability: Return on Assets Among Fortune 500 Firms for Selected Industries, 2005-2013 (last updated 6.21.14)
- Fig. 8.7c created from Table 8.6c. Trends in Profitability: Return on Equity Among Fortune 500 Firms for Selected Industries, 2005-2013 (last updated 6.21.14)

Download PowerPoint versions of both figures.

- Figure 8.7a Image Slide (as it appears above)<sup>2</sup>
- Figure 8.7a Editable Slide (can be formatted as desired; last updated June 21, 2014)<sup>3</sup>
- Figure 8.7b Image Slide (as it appears above)<sup>4</sup>
- Figure 8.7b Editable Slide (can be formatted as desired; last updated June 21, 2014)<sup>5</sup>
- Figure 8.7c Image Slide (as it appears above)<sup>6</sup>
- Figure 8.7c Editable Slide (can be formatted as desired; last updated June 21, 2014)<sup>7</sup>

## 2 References

- A. Fortune 500. Our Annual Ranking of America's Largest Corporations. <http://fortune.com/fortune500/> (accessed June 21, 2014).

---

<sup>1</sup><https://hub.mili.csom.umn.edu/content/m10115/latest/8.6TAB>

<sup>2</sup><https://hub.mili.csom.umn.edu/content/m10115/latest/8.7aIMG.ppt>

<sup>3</sup><https://hub.mili.csom.umn.edu/content/m10115/latest/8.7aDATA.ppt>

<sup>4</sup><https://hub.mili.csom.umn.edu/content/m10115/latest/8.7bIMG.ppt>

<sup>5</sup><https://hub.mili.csom.umn.edu/content/m10115/latest/8.7bDATA.ppt>

<sup>6</sup><https://hub.mili.csom.umn.edu/content/m10115/latest/8.7cIMG.ppt>

<sup>7</sup><https://hub.mili.csom.umn.edu/content/m10115/latest/8.7cDATA.ppt>